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NATIONAL AGRICULTURAL COLLEGE

WINTER 1959

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NATIONAL AGRICULTURAL COLLEGE

DOYLESTOWN, BUCKS COUNTY, PENNSYLVANIA

VOL. LIV WINTER, 1959 No. 2

Let the farmer for evermore be honored in his calling, for they who labor in the earth are the chosen people of God.

THOMAS JEFFERSON

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Editorial

– Publishing A College Magazine

Have you ever wondered about the work involved in producing one issue of the *Gleaner*: who writes the articles; who checks and criticizes the layout before it goes to print; and last, who pays for the magazine?

Before work starts on an issue, a preliminary meeting is called by the Editors. During the meeting the regular and special features are assigned, a discussion is held concerning the cover and centerfold, and the photography staff is briefed on the type pictures needed for the issue.

When the deadline comes along the troubles begin. You have probably seen the Editors scurrying around collecting the articles or hurrying the staff members for the completed articles, trying to get the students to the photographer for their pictures, etc. Here we should stop to clarify a thing or two. A majority of the staff works hard and turns in everything at the deadline or before. These are the persons you can call on for a "rush article."

Once the articles are collected, the most time consuming job starts. All articles are proof read by the Editors; mistakes are corrected, paragraphs rephrased and punctuation checked. After being proofed, the articles are given to the typing staff who struggle through long-hand manuscripts and proofing marks and finally finish the articles. The articles are again checked by the Editors. Only now the articles are ready to go to the printer along with the accompanying pictures.

After a week the printer returns galley proof forms of the articles, which are simply long sheets of paper with articles printed in two columns, and plates of the pictures.

Now the galley proofs go through an examination first by Mr. Forbes, faculty advisor, who checks the editorial slips and misprints, and second by Dean Meyer who rechecks the galleys.

The proofs are then returned to us, with red marks, arrows, and signatures on every page. We now begin the "paste up copy." The magazine is laid out and every detail is taken into consideration; spaces for advertisements, arrangements of the articles, photographs, drawings, etc. The final manuscript is then sent to the printers and returned in a week in magazine form.

Upon the arrival of the magazine the distribution staff starts buzzing. Copies of the magazine are now distributed among the students, faculty, and sent to the Alumni and members of the college-magazine exchanges.

The *Gleaner* costs are covered partly by the money collected from advertisers whose ads you see spread throughout the magazine and partly

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NAC Pigs Are Doing Fine!

by Dr. Tibor Pelle

Not very long ago an outstanding livestock breeder said to me: "I understand pigs are your favorite animals." After a few seconds of hesitation I replied: "Perhaps that is true."

There are many good reasons why one should give recognition to swine. If you like to work with them and give them the proper care, feed, and a clean place to live, they will respond in the best possible way in a very short time. Their prolificity, feed conversion, and ability to grow are outstanding characteristics. They seem to grow while you watch them. Very few people realize the unbelievable results you can achieve with pigs. And they are fun, too.

More crossbreeding is being practiced in swine, mainly by the reason of their nature, than in any other species of livestock. A little over a year ago we started at N.A.C. to breed Chester White sows to a Yorkshire boar. The Chester White sows we are using raised on the average 12 pigs at weaning, and produced their litters in a six months' interval. What we are striving for in the offspring is the leanness of the Yorkshire and the ham of the Chester White, besides taking advantage of heterosis. The mating resulted in a quite long, lean, smooth hog, not too high off the ground, showing fairly good hams, uniformity, and strong bones—all in all a good combination of the characteristics of the two breeds. Three of those crosses we

NAC Champions at Trenton

(Continued on Page 16)

NAC Offers Bachelor of Science Degrees in Chemistry and Biology

Last June the State Council on Education for the Commonwealth of Pennsylvania authorized National Agricultural College to offer two additional curriculums leads to Bachelor of Science degrees in chemistry and biology.

The curriculum for these new degrees will follow the existing philosophy of the College—a solid foundation in basic sciences followed by professional application to either specialized chemistry or biology and sufficient additional coursework in social sciences, humanities and communications to balance the educational program.

The professional application of biology and chemistry to fields other than agriculture tends to emphasize the new outlook that N.A.C. envisions for its future. The technical and professional application of our educational program in all areas of industrial development is the logical outlook because N.A.C. is situated in the center of a highly industrial and expanding commercial economy.

Curriculums in Chemistry and Biology

The coursework for the new curriculums includes a foreign language, an expanded approach to organic chemistry and analytical chemistry and with no required courses in agriculture. Physics will be required in both curriculums.

The course offering for the curriculum in chemistry will include:

(1) Fifty-three credits in chemistry, consisting of general chemistry (8), analytical chemistry (14), organic chemistry (11), physical chemistry (11), biochemistry (3), seminar (2), and instrumental analysis (4).

(2) Twenty credits in mathematics including calculus. During the senior year, through elective credits the student will have the opportunity to select courses in the applied fields of chemistry in which he expects to work following graduation.

Several courses new to N.A.C. will appear with the biology curriculum. These will include comparative anatomy, cytology, histology, immunology, embryology, virology, bacterial physiology and determinative bacteriology. Expanded treatment of existing courses of taxonomy, zoology and plant morphology will take place.

Course credits for biology will include:

(1) Forty-nine credits in biology consisting of Botany (8), zoology (8), bacteriology (8) and 25 additional credits selected from these three areas.

(2) Twenty-seven credits in chemistry consisting of general chemistry (8), organic chemistry (8), analytical chemistry (8) and biochemistry.

During the junior and senior years the student will select courses in either fields of botany, zoology or microbiology depending on the area of specialization.

In both curriculums the required field laboratory programs will relate to acquiring proficiency in certain skills within the area of specialization. Certain related programs will be worked out on a cooperative plan between the College and industry in the surrounding area.

Opportunities in the Chemical Field

Many attractive positions are available for the trained chemist in the following chemical fields: inorganic, analytical, organic, physical, agricultural and pharmaceutical. Examples of specific industries utilizing chemical knowledge include rubber, steel, plastic, soap, paper, dye paint, glass, fertilizer, insecticide and synthetic fiber.

In human welfare qualified chemists study and work in the fields of medicine, nutrition, drugs, antibiotics and food.

Along with the physicist the biological chemist is engaged in studying the effects of simulated space travel on biological processes within the human and animal body. At the same time the fuel chemist is working toward developing and perfecting present fuels used for rocket propulsion as well as inventing new and more powerful ones.

The need of chemists in so many related and vastly different areas makes the field of chemistry so broad that no one can expect to become proficient in all its branches.

A chemical education first and foremost must consist of certain defined disciplines that establish a strong foundation in chemical knowledge. Specialization in a given branch of chemistry prepares the chemist for careers in research, teaching, private industry and government. The required knowledge for a given specialization should be chosen wisely during the latter part of a chemical curriculum.

With a good background both in chemistry and in a related field a student may look forward to employment and career opportunities which are rewarding both in salary and satisfaction.

Opportunities in the Biology Field

With an adequate background in botany, zoology and microbiology and with specialization in one of these areas many opportunities exist for serviceable and profitable employment. This includes private industry, government jobs at federal, state and local levels, research and investigational work, teaching in schools and colleges and consultant positions.

In the industrial field, insect and rodent control including administration of observation stations which plot the activities of pests, represent jobs in which a zoologist with a back-

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Life Denied

by John Mertz '62

The isle stood defiantly against the endless battering of the ocean's swells. It seemed to have risen from out of nowhere countless eons ago, the product of volcanic evolution. Yet, though it presented such a forbidding outline, that very stump of rock was home to an enormous bevy of gulls. On top of the rock, protected from shattering waves by steep cliffs, the birds knew they could always find shelter. For miles in every direction the gulls could look out on an unbroken sea—the very substance of their lives.

Now the air was still and the sea undulated as a sheet of glass; now a squall comes from the horizon and the sea churns with fury. Calm or furious, the scene was one of desolation except for the presence of the birds themselves.

Then, a tiny yellow object appeared in the distance, bobbing like a cork in the swell. It's a raft; perhaps now we will have some life on the scene. But no; there is a body on the raft, but it is limp and senseless—torn and bruised by long miserable exposure to the elements. Perhaps several days ago that hulk might have been recognized as a man, but the storms and salt spray had taken their toll.

Still the sea rolled on, pushing the raft before it, until it jarred to a halt on the shoals surrounding the rock. There is stuck, with the waves breaking around and over it, until a big enough swell came along to wash it up on the sparse shelf of beach. As the raft jolted to a halt on the sand, its limp occupant tumbled up further on the beach, and the next breaker pulled the raft out onto the shoals again. Through the heat of the afternoon the body lay on the beach while the raft was torn to shreds between the reef and the waves — and the gulls continued to seek their existence from the sea, undisturbed.

Just before sunset a squall scudded up the scene with cool, refreshing showers. The limp figure stiffened reflexively, and then moved. All the strength left in some hitherto hidden reservoir in that wracked body was drawn up until enough had been summoned so that it awkwardly managed to turn itself over to allow the rain to beat down on an emaciated chest and trickle between swollen lips.

The squall passed, but the man continued to revive. Within half an hour he was making a crude attempt to crawl further from the sea. At the base of the cliff he found a hollow in the rock, filled with a brakish mixture of rain water and salt spray. He tried to gluttonishly gulp the water down, but his swollen throat wouldn't let it pass and he had to be content to let the liquid trickle through his swollen lips a drop at a time. The swelling went down and he gradually drank his fill and fell into a deep slumber.

When he awoke it was midmorning. The bright sun burned his sunken eyes but his discomforts were unfelt in the joy of feeling solid ground beneath his feet. Again he drank from the pool. He was not thoroughly satisfied—now he was hungry.

His gaze caught a lone gull wheeling gracefully above the waves, and his eyes followed the bird's flight until it ended on a perch on top of the cliffs. He rose weakly and began to claw his determined way up the pitted wall. Sharp rock tore at his naked flesh but he'd undergone so much torment already, the new pain was unfelt.

Eventually he made his way up to the top, and was met by the sight of an undisturbed community. The gulls had never had any cause to fear human intrusion, and they greeted the new intruder with uniformly blank expressions. He seized a bird and savagely tore it apart, shoving mouthfuls of steaming flesh down his throat; his stomach was so constricted that it heaved up its contents as fast as they were fed down.

Now, half crazed with hunger, he grouped through several nests until he came across several eggs that were fresh enough to eat. After satisfying himself, he kneeled down beside a crevice full of water and quenched his thirst. Then he snuggled up into the shadow of a boulder and again fell into a deep sleep. In the middle of the afternoon he awoke with a start. The gulls were all in the air, flying in circles and filling the air with high pitched screams. He cautiously studied his surroundings, but could see no reason for the excitement.

A few at a time the birds began to return to their roosts, and he grabbed one and made a meal of it with success. Then he began to turn his attention to rescue and return to civilization. He searched the horizon for some sign of human life; a wisp of smoke caught his eyes. A ship? An expression of horror swept over his face as he saw that the smoke was lazily curling up from a fissure in the isle's broken surface.

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Nutrient Deficient Soils Can Be Made Productive

by Roger Blatt '60

I believe that before going into various methods and explanations of how the so-called "worn out" soils can be productive, I should give you a bit of soil history and a few soil conservation concepts that will explain why these soils end up in such a bad condition.

Soil exhaustion is in most cases due to lack of proper soil conservation practices. Such practices include the checking of erosion, proper water holding properties which are achieved by cover cropping, care of freshly-turned soil by good drainage and contour tillage. All these practices will help the farmer to get the most profit from his soil and still retain soil fertility.

Fertility is the plant-producing power of a soil and is maintained merely by growing plants. "It is the life in soil that gives the soil its fertility and is thus a biological phenomenon," says G. V. Jacks in his book *Soil.* This life in the form of organisms can be maintained in the soil by allowing the growing plant to supply them through its normal functions, or under exceptional circumstances, by artificially feeding these organisms to the plant in solution. In either case fertility has to be created by living organisms, and a decline in this life must be left to nature, nature itself will in time restore it to its original fertility.

These microscopic organisms, roughly classed as fungi and bacteria, are mixed in definite balance in the soil to: (1) fix free nitrogen; (2) nitrify, or change insoluble organic nitrogen to a soluble nitrate; and (3) denitrify — or reduce — nitrates to nitrites and ammonia, all of which are readily soluble by the root system. Microscopic organisms, those which can be readily seen by the naked eye; consists of rodents, worms and insects, the worms being the most beneficial. The worm benefits the soil with its excretory organic matter which supplies valuable disintegrated nutritional material. Its burrows increase aeration and drainage. Further aeration is accomplished by the movement of the worm as it brings lower soil to the surface by its traveling through the soil. It has been proven experimentally that these creatures are very necessary in any soil conservation program.

The importance of irrigation in soil conservation is twofold. The main purpose is to supply the crop with the correct amount of water at the right time during the growing season. The second reason for irrigation is to remove excess water that would lie in puddles and cause rot of the seed and over-balanced plants when germination took place. A clay or mucky soil would be affected in such a way. These problems have to be compensated for in the preparation for cover cropping the soil. This cover cropping will be in the form of a crop rotation. In soil conservation crops that are rotated have produced much better yields and higher net returns than crops grown continuously on the same land. Short rotations generally give larger ecnomic returns, but long rotations help to maintain soil productivity. In relation with this practice necessary nutrient addition is needed, such as nitrogenous fertilizers, to maintain the profitable yields of high quality crops. Crop rotation is an important insurance of good yields, better dividends, and continued fertility of a soil.

If the above facts were fully understood by every farmer, there would be no "worn out" soils. Because they have not been understood, or have been ignored by many farmers, we have in the United States today large areas of "worn out" soils.

The first step in this revitalization is to restore nutrients to the soil. Manure is very effective in maintaining soil nutrients and human and animal manure may be used in this process and should be applied as plowing is done. This addition tends to liven up the soil to the extent that further tillage will bring a turnover of organisms-enriched soil. This soil will be susceptible to the advantageous effects of weathering. This livening up will also help in replacing vital nutrients in the soil which have been taken up and not replaced by the preceding crop. Enough manure should be added to insure some left over by the crop first planted in order to give the soil some balance and starting substance for succeeding crops. A "manure" used here effectively is green manure which is planted and plowed under green for the purpose of restoring organic matter to the soil.

The differences between the manures and the commercial fertilizers are the forms in which the major nutrients are carried, and the varying strength of the three main nutrients determined by ratios and grades. Nitrogen, phosphorus, and potassium make up the "big three" or major group in the fertilizer mix, while a second group consists of Ca, Mg, S, and Fe is added in varying amounts. A third group, known as the trace elements, is made up of Mn, Cu, Zn, and B, complete the fertilizer mix. These all appear in varying amounts and have to be supplied in correct proportion for satisfactory soil function.

For fertilizing cash crops a ratio of 1-2-2 is recommended, and is represented in grades as 5-10-10, 8-16-16, 10-20-20, etc. Some farmers add, as a booster, the compressed gas anhydrous ammonia which contains 82% nitrogen. Applied in mid-July on corn,

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Food and Our Future Existence

by Jerry Mulnick

Once upon a time there were 20 million people living on planet called earth. They all had one thing in common. The need for food. They obtained this greatly varied substance by hunting, fishing, and plucking from plants whatever Mother Nature had to offer.

Down through the centuries this relatively small mass of humanity multiplied until its descendants now number roughly 2½ billion (with 8000 new mouths to feed each day in the United States alone). Notice how swiftly I traversed a period of about 5000 years in just a few words. This is because of the slow acceleration in both population increase and agricultural advancement. Of course the ancient Egyptians and the Romans did not have much past experience to study from in the line of agricultural technology. Yet from dire necessity and through trial and error the methods of cultivation and irrigation were put into practice. I will not attempt to give the details of the history of agriculture since this is a study in itself. Rather, I shall indicate the position in which we stand today in relation to our future food supply.

We in the agricultural field look upon the world's largest animal group, the insect, as being the number one peril of man's present and future food supply. Actually this is a misconception. In our present day and age of nuclear plant mutation, DDT, and the Atlas missile, this is not the case. The greatest single danger to man's future food supply will not be the insect but rather man himself. Five thousand years ago the population of the earth cannot have numbered much more than twenty million. Today the yearly increase in world population is nearly twice this amount. (See Malthusian Theory in any economics text.)

Of the world population of about 2½ billion the United States population is now 173 million with an expected national population of 300 million before the end of the century. By the year 1975 the American farmer will have to produce 50% more food than he is producing now. This will include 62% more eggs, 61% more broilers, 58% more hogs, 54% more truck crops, 50% more cattle, 47% more corn, 37 50½ more cattle, 47% more corn, 37% more milk, 28% more sheep, and 23% more wheat. (Figures estimated by the USDA.)

Yet 4000 acres of food producing land is lost each day to a combination of erosion, and constructing of superhighways, sprawling factories, and mushrooming suburbs. Naturally, as the amount of tillable land decreases so does the American farm population. But as modern technology advances less farmers can produce more food. Modern agricultural technology has developed such techniques as stillestrol (female hormone) application to steers for extra beef; artificial insemination and the "foster-mother plan" for increasing the reproductive capacity of both bulls and cows; the use of estrogen (female hormone) for the production of the valuable egg laying pullet, thus eliminating the birth of millions of useless cockerels; the development of drought resistant perennial wheat, a cross between common wheat and grass; the development of an arsenal of insecticides and weed killers including a combination 2, 4-D; trace mineral compound which not only makes weeds "commit suicide," but actually increases corn yields up to 20%; and the development of plant mutations by means of nuclear radiation. These developments, and many others, may be substantial for many years to come. But with population increasing by leaps and bounds, what will the situation be like in the 21st century?

We talk of surpluses as being a plague on the American farmer. But as the previously given percentage requirements indicate, the words surplus and government subsidies may be a thing of the past.

For in the 21st century radical changes will come about. Our conventional agricultural technology coupled with extensive soil conservation will not be enough to keep a hungry, overcrowded world fed. It is at this point that man may be forced to abandon his accomplishment of a 20-hour work-week and his indulgence of his second instinctive drive and concentrate primarily on his number one drive, that of keeping alive. It is at this point that man will find new sources and will develop revolutionary new methods for obtaining his food.

One of these sources is the sea. If man keeps the horse before the cart and develops a full scale seafood inustry the above "mess" need not occur. At least not so soon. For the sea possesses an almost unlimited variety of nutritional food, both animal and vegetable. Of some 16,000 species of marine life, only a handful are used commercially to any significant extent. Thousands of others including barnacles and seaweed could, and will in the future, be put to practical use in human food consumption.

According to the textbook of General Botany, Holman and Robbins, "Algae make up the greater part of the vegetation of the ocean. The free-floating marine plants are generally unicellular forms and are spoken of collectively as the phytoplankton of the sea, plankton being a collective name for free-floating aquatic animals and plants." It is this phytoplankton which makes up the ocean's basic food form. The fish men eat have eaten smaller fish and so on down the line until if we trace back far enough in this biological chain it is found that the smallest of the animals are the ones to consume this nutritionally valuable plankton, whereas there is a 90% loss in food value in each step of this biological chain. Therefore, as the world's need for food increases, oceanographers may seek a way in which men can consume the basic food at first hand without sustaining interim losses.

While still on the subject of the sea it may be noted that a New England harbor properly cultivated, could produce nine tons of clam meat per acre annually—three times the amount of comparable food an Ohio farmer could produce on one acre.

Now let's turn the spotlight on chlorella, a unicellular plant belong-

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PHEASANTS

SOMETHING NEW AT NAC

by Hernando Botero '61

One of the improvements realized in the Poultry Department here at N.A.C. is the acquisition of a pheasant pen with excellent specimens. This is a facility that is going to become invaluable for the students interested in raising these game birds, for we now have a laboratory equipped for our future enterprises.

Some of the pheasants given to N.A.C.

The importance of pheasants and their popularity as game birds is clear when we consider that in the State of Pennsylvania alone, approximately 127,000 pheasants were released in the past year as fully grown birds. Besides a larger number of private preserves, the United States has 388 preserves open to the public. This is just an example of the tremendous importance that game birds now play.

Pheasants were introduced to America for the first time in 1882 on the Northwest Coast; in 1887 the East Coast received its first imports. Although pheasants are relatively new in this part of the world, they have been known since 1263 B.C. to the Greeks who discovered them on the banks of the river Phasis in Colchis. They named the birds "Phasianus ornis," Phasianus coming from Phasis, and from this word the English version, pheasant, was derived; ornis in the Greek means bird.

Pheasants include a large number of kinds (species and sub-species) grouped into 16 genera. These genera include the Junglefowls, which are the ancestors of our domestic poultry, the Argus and the Peafowl, the most beautiful specimens of this kind. From all these varieties the most common is the ring-necked pheasant which is a hybrid of the English and Chinese pheasants.

Although pheasants have oftentimes been blamed for damaging cornfields, they have to be given credit for destroying large amounts of grasshoppers, caterpillars, bugs, ants, and even field mice; this more than offsets the balance in their favor.

In this country their favorite habitat is open country, but they prefer bushy lands to woodlands, hayfields and areas with short vegetation. In the winter they search for barnyards where they may find food more easily. As spring arrives they again retreat to the open fields to raise a new generation. The flocks are usually larger in winter than in the spring, especially at the time of mating, when one male runs with a few females.

The hen usually lays nine to seventeen eggs in an average clutch; but in captivity they've proved more productive and are expected to lay between forty and fifty eggs a season. In the wild state, the incubation period lasts from twenty-three to twenty-seven days and the hen cares for the eggs and chicks until they are twenty-four hours old. Completion of the juvenile plumage takes thirty days. Upon completion of this primary feathering, they molt and start another phase in feathering. When the entire process is completed, only then does the bird increase in weight.

Pheasants in the wild state feed on insects, weed seeds and grains, corn in particular. In captivity, these birds should receive only the amount of feed they consume in determined time which is different according to age: for example, small chicks should be allowed to eat for fifteen minutes, three times a day until they are three weeks old; from then on they may be fed only twice a day for thirty minutes. The reason for this is that pheasants are frugal eaters, and overeating is almost as bad as starving them; regularity in feeding seems to be the most important condition in raising good pheasants. Water and grit must be kept at all times before them. A good turkey starter mash is the common feed used for pheasants in the younger state. Some authorities, in this matter, recommend feeding the day old chicks only boiled eggs, the next day adding a small amount of mash, and every additional day decreasing the amount of eggs gradually until the second week when only mash is provided. Succulent, tender leaves of alfalfa, clover, lettuce or any rich greens should also be offered the young birds. At more advanced stage of growth pellets may be fed, and the ration varies as follows: starter mash from the first through the fourth week; from then to maturity a gradual change to grower pellets and in the eighth week a ration of game bird fitting mash or pellets is commonly recommended.

The first of many pheasant pens at N.A.C.

The diseases that commonly attack pheasants are coccidiosis, gape worms, and Newcastle disease; for these pests there are vaccines available (Newcastle), or dusters (gape worm, or coccidiosis); but we should remember that the best medicine for all kinds of disease is sanitation; in this kind of work, prevention is the cheapest insurance against losses.

WINTER

A FEW MORE OF THE FAM

Pearl S. Buck Speaks

Pihos' winning three: Holms, Stickel and Sterm.

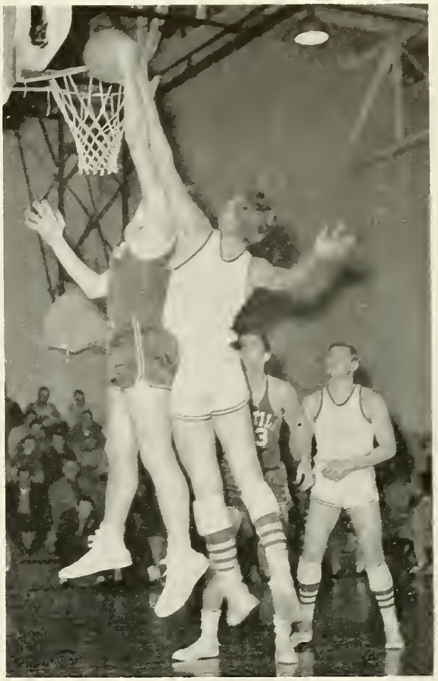
"What's the difference?"

They said it couldn't be done.

AT N. A. C.

LIAR SIGHTS ON CAMPUS

Soph's Snowflake Ball: Bad weather and good time.



Carl gets the rebound.

Ornamental Hort. Club's first success.

Swing your partner . . .

WHAT IS JAZZ?

by Bud Charlick '60

Webster's dictionary gives a very good definition of what jazz really is. It states: "Jazz is a type of music with accents falling in unusual places; it is usually syncopated music."

The following is the story and history behind the word that has made many people famous. Jazz was the name given to American popular dance music during the first World War decade.

The so-called Jazz Age also includes the period notable for, among other things: speakeasies, knee-length skirts, bootleggers, gang wars, and prohibition. It was the period when great writers such as Fitzgerald and Scott were writing their novels. Since then the word Jazz itself has been passed into the language as a synonym for racy; thus a writer may be said to have a jazz style or a jazzy costume.

Some people think Jazz originated in close harmony with the American Negro folk music, because Jazz includes the "Blues" which was the Negro folk music itself. This form of Jazz was made famous by W. C. Handy and great band-leaders like him.

The idea of Jazz coming from American Negro folk music started back with the slaves. They were musical people, had a great rhythm, and sang whatever their moods were. Following this, this type of music was improvised. It would start with the brass bands down South marching around the streets or just playing at a corner cafe. A few musicians would gather around and play some of the spirituals which when improvised and given a sycopated beat formed the type of music called Dixieland. The men used to have contests to see which band could play the best improvision.

The melody and harmony were no problem to these Negro bands. Their voices and instruments tended to slur and strike the right harmonic chords. No one knows exactly why this kind of playing came so naturally to the Southern Negroes, but their harmony was the best of its kind. Their fixed harmony was written down and is still used today. The Negro folk music was fluidily infused with (blue) tones which were played between the flat and natural scale. As far as the music was concerned, it was developed around its own blues scale.

Negro folk music has its own unusual rhythm. A person coming from the West and being familiar with western music knows that it is syncopated. But if he were to hear Southern folk music for the first time he would say that western syncopation is nothing like southern syncopation. This is why. In western music syncopation is done on the beat, while in Negro music the sycopation is done off the beat and the music can be said to have accents falling in unusual places. This is the one thing that makes Jazz different than any other type of music.

The Negro folk musicians can be said to have played their instruments and sung their songs exactly how they pleased. They were even said to have made their instruments sound like the human voice. This was called "vocalizing" their instruments.

Until the last part of the 19th century this type of music did not leave the South except for the minstrel shows. However, around the 1890's certain aspects of the Negroid Idiom began to make a widespread appearance in the popular dance sensation known as "Ragtime." This name applies to two general types of music, the agile piano performances with the syncopated beat and secondly, countless popular songs and dance music using some of the simpler rythms found in piano rags. Ragtime performances in general did not include the greatest part of the Negro Jazz such as improvision in instruments as well as voices, or the "blue" texture, but included only a few suggestions of the Negro idiom, like syncopation. Thus Tin Pan Alley (the American Popular Dance music business) only used these few suggestions of the Negro idiom. These few changes were enough to change the whole rhythmic character of American popular dance music. As it is well known, it was ragtime which started the popular dance craze, long since extended into a national habit.

The first big step of dance music revealing the Negro idiom came in 1914 when Chicago cafe proprietors imported white bands from New Orleans as novelty attractions. The name "Jazz" was applied to the music, derisively in Chicago, where the word had an obscene meaning and proved of inestimable publicity value. Here the music was immediately and variously counterfeited by many band leaders who did not feel this type of music, but wanted to cash in on the profits. Instead of the "blue" texture, theirs were "blue" notes. Instead of the vocalized instrumentation there were vocal imitations, cornet baby cries, and laughing trombones. Instead of the true syncopation there was a sort of mixed up clatter of any type of syncopation the musician wanted to put in, helped along by drummers with sets of kitchen utensils. This was the kind of Jazz around in 1914 made by a bunch of din-makers (as one author puts it).

In the early "twenties," Paul Whiteman capitalized on the Jazz idea by using a big band and calling his music "symphonic jazz." Whiteman played fancy orchestrations of the popular dance songs. In his music there was little influence of the Negro Jazz except for the slight influence of syncopation. But the difference between Whiteman's music and the din-makers of 1914 was his music was vividly colored and expertly played and set up as a general style of dance music after his New York debut. Meanwhile the Negro dance musicians began to play more and more orchestrated music with the exception that during the solos the musicians would improvise into the music whatever mood that they were in.

(Continued on Page 14)

THE GLEANER PRESENTS
HONOR AGGIES

by Ray Hendrick '59 Joe Shinn '59

Richard Dale Porter is perhaps one of the most outstanding men to graduate from the National Agricultural College. "R. D." or "Dick" as he is sometimes called is as versatile a personality as can be found anywhere. He is the president of the Agronomy Club in his second term, and displays his leadership in an easy-going, apologetic manner. In any moment of crisis, however, he betrays a calculating, resourceful mind.

Richard Porter

One of his surprising abilities is his power to observe any orderly arrangement and exactly memorize it so that, whenever needed, he can recall in picture fashion the original image. The photographic memory combined with an uncanny power of concentration has enabled him to carry a near perfect scholastic average all through college.

In his Freshman year, Dick went out for football and in time developed into a number-one halfback. He received rib injuries which ended his career in football. We're sure he was sorely missed.

The square-jawed ex-Marine is a native of Scranton, Pennsylvania, and attended Central High School there, graduating in 1952. He enlisted in the Marine Corps in September of 1952 and went to electronics school after basic training. During his "hitch" he rose to the ranks of sergeant and traveled to Japan, Okinawa, Wake, and Iwo Jima, with the Third Marine Division. He left the "Corps" on September 9, 1955, and reported for football practice here at the National Agricultural College only two days later.

Last year he married a graduate of the Pennsylvania School of Horticulture and is currently residing at the Colonial Trailer Park in a mobile-home all his own.

All of Dick's plans have been directed to graduate school and the most probable place he will attend is Syracuse University. There he will undertake to obtain a Master's Degree in Forestry with the hope of entering the National Forest Service.

We'd like to say "Thanks, Dick," for being a National Aggie.

* * *

In keeping with the tradition of presenting seniors who have, through four years at N.A.C., excelled in all fields, we present to you Leon Furth.

Leo spent his early days in far Rockaway New York where he received his elementary education. He then moved to Brooklyn, N. Y., where he went to Eramus High School. While at Eramus he was active in football, and one of his chief noncurricular interests was salt water fishing off Rus Park. After high school he worked for the R.C.A. Company two years after which he enlisted for three years in the Army, taking advantage of Army schooling.

After his discharge, he decided to enroll at N.A.C. His deep interest in agriculture developed while working on various farms of friends and he came to know of N.A.C. through a former student.

Leo is an Animal Husbandry Major and is very active in the Senior Class. His list of activities is long and includes being the secretary of the class, being a sudent council representative, member of the Animal Husbandry club, member of the judging team, being active in the A-Day committee and as most of us know he was associated with the student store. As if this wasn't enough Leo's other interests occupy him for the remainder of his spare time. He has been doing experimental work with hogs and steer in respect to rate of gains and utilization of feeds. He also enjoys livestock sales and shows.

Immediately upon graduation Leo would like to become associated with an established show herd with a good herdsman so he'd be able to become acquainted with the practical side of the field. His ultimate goal is to own a farm with steer and a purebred herd on the side.

Leon Furth

We are certain that Leo will continue to show the same hard work and enthusiasm which will enable his goal to become a reality. Keep up the good work, Leo, we're all proud of your record. You are one person we can truly call an Honor Aggie.

34th Annual Inter-Collegiate Poultry Judging Contest

by Phil Dodge '61

As was stated in the December issue of the *Furrow*, a more detailed account of the 34 Inter-Collegiate Poultry Judging Contest would be in the winter issue of the *Gleaner*.

The N.A.C. team got up bright and early Friday, November 21, and set out for Rutgers, ready to compete with any team present. We arrived at about 8:30 A.M. and registered for the contest at the Poultry Science Building on Ag. Campus. From there we went to Agora Hall on the Douglas College campus and were present at a meeting for Poultry Servicemen in feed and allied industries. A panel discussion was held and the various viewpoints of Industry Extension and Research were discussed.

After lunch we returned to the Poultry Science building where we met the members of the other teams and assembled for a trip to the Merck Institute in Rahway, N. J.

When we arrived at the Institute, we were escorted into the library where several research men explained the different departments such as physiology, pathology, and nutrition, how they were inter-related, and how a feed was finally named and put on the market. After hearing the theoretical explanation, we proceeded on a tour and saw the theory being practiced.

From the Institute we proceeded back to the Poultry Science building and waited for Mr. Ferdo. He and the other coaches had been judging the birds we were to judge the next day. It is the usual procedure for the coaches to judge the birds the day befor the teams do this. The teams are then scored as to how closely they agree with their coach's choices. After the meeting Mr. Ferdo decided to come back to N.A..C for the night, since we weren't too far from our campus.

Saturday morning we left about 6:00 A.M. and ate at a diner on the way. We arrived about 8:00 A.M. and when all the teams arrived, we were instructed as to how the contest was to be conducted. There were sixteen classes of birds. Classes one through eight consisted of production hens, pullets, or males; class number eight and through 13 through 16 consisted of a) White Plymouth Rocks, meat type, (b) ten market fowl, U.S.D.A. grades, (c) ten broilers, U. S. D. A. grades and classes 9-12 which consisted of 20 disqualifications. Since there were three members to a team only 16 classes were divided into three groups, A, B, and C. While two groups judged, the third rested. We were allowed 12 minutes per class and at the end of each class we turned in our scores to the respective leaders and proceeded to the next class or rest area. At twelve o'clock we had lunch and at one we started judging the remaining classes. The judging was finished about 2:45, and for the first time since the contest had commenced we got together with the rest of the team and discussed the various classes and how we had placed them. Our team then went to the Poultry Lab where we changed our clothes and then viewed Rutgers experimental birds, their egg grading setup, and their processing and eviscerating rooms.

At approximately 6:30 we went to a banquet held at the Howard Johnson Restaurant. We had dinner and then heard speakers and then the team placing and the individual awards were presented. Trophies were presented to the first two teams and to the man with the top score. The following is the tally team placings and scores: 1. University of Maryland, 3123; 2. University of Connecticut, 3082; 3. Cornell University, 3005; 4. Pennsylvania State University, 2911; 5. University of Massachusetts, 2829; 6. University of New Hampshire, 2709; 7. N.A.C., 2695; 8. Rutgers University, 2620.

The man with the top individual score was Robert Powers of Connecticut with a total of 1123 points from a possible 1200 points. N.A.C.'s individual scores were: Hernando Botero, 966 (14), Philip Dodge, 917 (18), and Aaron Schneider, 812 (23).

The contest proved to be very beneficial for we made several new acquaintances and learned a great deal about contest judging. It is the hope that next year when the article about the Chicago judging contest is written N.A.C. will be ranking as one of the top ten.

WHAT IS JAZZ?

(Continued from Page 12)

In the early Thirties, Negroid Jazz began to grow in popularity, the chief reason being that the programs of certain bands were on national radio networks. In order to distinguish their music from the Negroid Jazz, the devotee's of this new type of music started calling it "swing," a word which Negro musicians had long used as a verb with obviously rhythmic connotations. But no sooner had the word shown signs of having commercial drawing power, than it was sought by all the dance musicians of the time. The radio broadcasting business sprang up over night, big bands emerged out of nothing. This was the era of the great bands, men never to be forgotten like Benny Goodman, Harry James, the Dorseys, and so many others. This was the era when swing music took in not only the Negroid idiom but added to it greater sounds. Where before men used to gather in groups of four and five on the corners, big bands of twenty and thirty played this new kind of music (swing) in Carnegie Hall. Where before this type of music was used as novelty music in the Chicago cafe, now it was being heard by the aristocrats as well as the laymen. Benny Goodman playing at Carnegie Hall received just as much publicity as the Philharmonic would have received. It was Benny Goodman and many bandleaders like him that went on the radio at all hours of the night to break out of the dim age into a new era. He used his orchestrations as well as improvisions which he himself played. Some of us nowadays would jump at the chance to hear some of the old records of Benny Goodman at Carnegie Hall 1937-1938 Jazz Concert or Glen Miller's orchestrations or many of the other great musicians.

This article has tried to show the true meaning of "Jazz" as started with the Negro folk music and coming up to the "swing" era, keeping the old idiom of the syncopated rhythm accented in unusual places.

BASKETBALL AT NAC

Interview With Coach Gehlman

by Gary Stapleton '61

Mr. Gehlman, basketball coach here at the National Agricultural College, was born and raised in Johnstown, Pa. He attended Ferndale High School where he starred in baseball, basketball, football and track. While in high school he was selected to play fullback on two all-star teams. Besides high school sports, he played basketball for the YMCA and City League teams, being selected for the City League all-star team.

Ted was awarded a football scholarship to William and Mary where he majored in Physical Education and minored in Biology. While in college he played 4 years of football in the position of tackle. He also played in the Dixie and Delta Bowl. In his senior year he was selected by the Allstate Associated press of Virginia to play on the All-Southern team. Besides football, Mr. Gehlman was a member of the track team for two years on which he specialized in the shotput, discus and javelin. He was also a member of an independent, semi-professional basketball team, the Williamsburg Colonials.

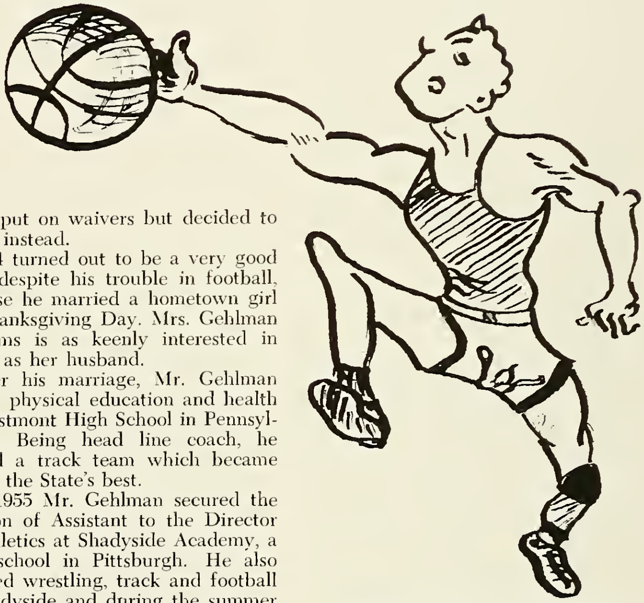
Upon graduation from college in 1951, he was drafted by the Pittsburgh Steelers. He was also contacted to play Canadian ball for two teams.

In 1951, Mr. Gehlman was named, by Stan Woodward, as one of the top 1000 athletes in all sports in the country.

Just before the regular football season, Mr. Gehlman seemed to be low on luck, for he was drafted by the Marine Corps for two years. While in the Marines, he played and coached the Paris Island team. He led the Marines to two All-Marine championships and won the East Coast Service championship. While playing football in the Marine Corps his leg was injured. This injury was to keep him from playing professionally.

After leaving the "Corps" in 1953 he entered a Sales training school.

In 1954, Ted tried to make a comeback with the Steelers, but before the season began, his leg gave out. He was to be put on waivers but decided to resign instead.



1954 turned out to be a very good year, despite his trouble in football, because he married a hometown girl on Thanksgiving Day. Mrs. Gehlman it seems is as keenly interested in sports as her husband.

After his marriage, Mr. Gehlman taught physical education and health at Westmont High School in Pennsylvania. Being head line coach, he started a track team which became one of the State's best.

In 1955 Mr. Gehlman secured the position of Assistant to the Director of Athletics at Shadyside Academy, a prep school in Pittsburgh. He also coached wrestling, track and football at Shadyside and during the summer both he and Mrs. Gehlman taught at the Shadyside Day Camp.

The National Agricultural College was very fortunate in 1956 when Mr. Gehlman accepted a position as one of the faculty. During his first year he was backfield coach for the football team. In the past two years he has been elevated to the position of line coach and head basketball coach.

The following is a comment Mr. Gehlman made in reply to the question concerning the future of N.A.C.:

"N.A.C.'s future is very bright, the college is getting bigger and better. This is due to the untiring efforts of Mr. Work, our president, who, in my estimation, is never given quite enough credit.

"Our basketball players shouldn't be too discouraged after losing five lettermen in 1958. It will take a while to rebuild, but the basketball team will be excellent for the next few years.

"I'd like to add that Mr. Work stated if I could have every student participating in one sport, the school would find the money to add that sport to our program.

"For all of you interested in a track team, it might be interesting to note that Mr. Glick is in favor of expanding our intercollegiate program. When our new gymnasium is completed we will be better equipped than most schools for an athletic program."

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SOILS

(Continued from Page 7)

marked improvements can be seen in growth, yield, and quality. The ammonia is usually applied in a side dressing, while the other fertilizers are applied at planting time with the seed. To a great extent they revitalize the nutrient deficient soil in addition to supplying a crop, whether it be a productive one or one for revitalization purposes.

Mulches are also a very good natural way to restore nutrients. Humus is "a product of the decomposition of plant and animal residues through the agency of micro-organisms" says E. B. Balfour in his book *The Living Soil.* It can be explained this way: mulches, the main one being humus, are the product of living matter and the source of it. The best way to "make" humus is to deliberately manufacture it outside the soil in humus piles (using vegetable, animal, and human wastes), and then apply it to the land.

Other mulches include the earth mulches such as dissolved lime, potassium, and nitric acid which are mixed in with the first three to eight inches of top soil. Depending on the soil it has been found that with these major constituents in the earth mulch, water can be saved by frequent cultivation, and frequent harrowing; rolling kills weeds and keeps the mulch in the top part or root area of the soil. This practice keeps the plant food dissolved in it for maximum absorption by the plant.

Deep plowing is important in this revitalization program as it loosens the soil and cover crops, retains conversion moisture, controls the weeds, and aerates the soil. Deep tillage would be effective in bringing up and breaking up soil which may have trapped nutrients which would be beneficial in the program. Also, this tillage breaks up any natural or man made clay hardpan.

The main reason for using cover crops is to bring the nitrogen level up to a point where the crop rotation which follows can be effectively worked. This nitrogen turnover, as continuous cover cropping for nitrogen purpose is called, builds the available nitrogen supply every succeeding year the crop is used. The build-up is greatly helped by nitrogenous fertilizer, either side-dressed or broadcast.

Cover crops commonly and successfully used are: rye grass, bluegrass sod, red clover, cow peas, and sweet clover. These crops can either be turned completely under or harvested and the stubble plowed down. The legumes will grow root nodules which will add greatly to the nitrogen supply and can therefore be harvested while the grasses would be better plowed completely under, leaves and all.

This cover cropping now leads to crop rotation, as the nutrient level is sufficient to stand some producing crops. These will be nutrient drawing and will help in exactly determining the severest deficiency and to what extent.

To insure a sufficient reserve and balance of the required and deficient nutrients, a three year rotation of corn, wheat, and clover usually does an effective job. Through this rotation the nitrogen level is built up to and kept at its former level, and in some cases there is even a small increase. By the fourth year a continuous crop program may be started. This can be maintained successfully for quite some time if fertilizer and manure applications are liberal. But, in the long run this whole process is at the cost of the soil productivity and in due time the yield will no longer pay expenses. Therefore it is wise to work in the three year rotation when feasible before the nutrient level drops sufficiently to make production lower and costlier.

The answer to this question lies in good soil conservation practices, nutrient build-up by cover cropping, and the insurance of a lasting high nutrient level by fertilizing and crop rotation.

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NAC PIGS

(Continued from Page 4)

showed at the New Jersey State Fair and they won five prizes in the crossbred barrow classes. One of our competitors asked about the breed of our hogs; he couldn't figure out what breed they were! Another 3 hogs we raised up to market weight and sold at the age of 165 days. We received the following information from the buyer: dressing percentage, 80%; backfat, 1-1¼"; length of loin, 25-26¼"; and average fat, 29 lbs. per pig. Very satisfactory!

Four of our female crosses were bred to the Berkshire boar we purchased last March in Maryland. A few offspring of these matings are in an experiment that already shows very promising results. Feed consumption and daily rates of gain are very satisfactory, and feed conversion is excellent. Since the feeding trial is not completed the figures are not available yet. As the next step we will breed some of these three-way crosses among each other in order to fix the outstanding characteristics of our "new swine." Maybe it is necessary to note that these pigs are fed our regular growing ration without using any stimulant, hormones, or antibiotics—with the exception of those pigs which are in a comparative experiment.

Someone may ask what is the purpose of these crossings? The answer is quite simple: to produce a hog that will satisfy the market, while keeping in mind the economy of production. Most of the hogs on the market are either "wasty" (too much fat) at the proper weight, or do not possess enough finish is sold too light. We shall try to produce a hog that maintains the high degree of prolificity, grows rapidly, reaches the market at an early age, shows economical conversion rates, and is long, lean, with a good proportion of the high-priced cuts. That is quite a goal. But we want to try it; we work on it, we talk about it—and this in itself is already some gain.

NEW MAJORS

(Continued from Page 5)

ground in entomology can quality. Similar jobs exist in the botany field. A trained microbiologist can qualify for positions in the fermentation industry involving the use of microorganisms for the production of antibiotics, ethyl and butyl alcohols, lactic acid and aromatic compounds used as flavoring materials in food.

In the research field trained biologists secure gainful employement in studies relating to physiology of plants and animals, protozoology, embryology, histology, marine biology and environmental studies on plants and animals. Such studies are often sponsored by the United States Public Health Service and by state, county and local health services. Consulting laboratories employ trained biologists in all areas of specialization where problems relating to industry continuously arise.

Biologists with specialized training may readily consider job opportunities in the biological fields that are varied, interesting, challenging and rewarding.

EDITORIAL

(Continued from Page 4)

from the students publication fees.

The preceding is a summation of the steps involved in publishing each issue of the *Gleaner*. We hope, in behalf of the entire staff, that you'll now understand why the *Gleaner* only appears four times during the school year and we hope that you'll appreciate your magazine now more than ever before.

LIFE DENIED

(Continued from Page 6)

The rock shook violently from within and he was knocked off of his feet. The startled gulls again took to the air and the thin ribbon of smoke increased steadily in volume, filling the air with a heavy sulphurous odor.

A molten, fuming liquid began to bubble up the sides of the broadened crack. The derelict rose unsteadily to his feet and backed away from the crater. He remembered the raft and looked longingly for it; through the smoke he caught a glimpse of shredded yellow fabric scattered over the reef.

The lava began to roll out of the crater and spill into the sea, sending up billowing steam to mingle with the smoke. Liquid fingers of lava began to advance across the rocks' top and the man backed away to the very edge of the cliff. Still the lava came forward —he turned and jumped.

Gently the sea carried his body away as soon as it hit the rocks below, just as the scene was rocked by a deafening explosion, disintegrating the rock into thousands of molten splinters and throwing them into the sea in every direction. Then the scene was calm and undisturbed.

The cloud of smoke was already diffusing and the gulls glided aimlessly above—homeless.

FOOD and OUR FUTURE

(Continued from Page 8)

ing to the algae group. You may have read about chlorella in your newspaper since much scientific work is being done on this green plant.

Right now scientists are studying efficient methods by which chlorella could be used as food for people traveling in space ships. Now this may seem as far-fetched to us now as did Buck Rogers back in the 1930's, or more recently Capt. Video, and Tom Corbett—Space Cadet. But with the events that have taken place within the past year as evidence that man will fly to the moon and possibly beyond, it is imperative that there be a food supply ready just as soon as such plans are made. In such an instance chlorella would fit the bill just perfectly. Since bulk and weight would be limiting factors on long space trips it would be impossible to take along all the food required. Chlorella could actually be grown within the ship, thus assuring a constant supply of nutritious, pasty, green spinach-like plant. (Sounds like a nauseating space age K-ration if you ask me!) At the same time it would absorb carbon dioxide and nitrogenous wastes, thus supplying oxygen. Chlorella can be grown in various solutions, thus yielding a plant rich in either protein or fat. Right now a maor obstacle towards mass production of chlorella is the expense involved in providing it with enough carbon dioxide. However, a carbon dioxide-oxygen cycle could exist between the chlorella and bacteria feeding on introgenous waste (sewage).

In the May 1956 issue of *Quick Frozen Foods*, Willy Ley, the world's foremost rocket engineer, wrote an article entitled "Spaceman on Earth Satellite to Subsist on Frozen Foods." When Russia launched its first Sputnik the article was reprinted in the November 1957 issue. Here are some of the points discussed by Mr. Ley:

A space station 1,075 miles above the ground would circle the earth once every two hours. Its crew would number between 50 and 80 men. About 160 pounds of frozen food would be used each day.

Pre-cooked frozen food would be used in preference to fresh or canned foods since there would be no inedible waste (such as husks, pods, skins, bones, and containers). "Weightless" thermoplastic wrappers would be used. This is extremely important since weight conservation would be a prime factor in supplying the station from earth since it would require 140 lbs. of rocket fuel to carry just one pound of payload.

Heating of these foods would be done either electronically or simply electrically by means of glowing wire coils. Neither method would use any of the precious oxygen. No heavy freezer cabinets would be required to store the frozen food. Instead, the food would be kept hanging in a nylon net in the shadow of the station. Here in space there is no such thing as temperature since only matter can have temperature and space by definition is a vacuum, the very absence of matter. When the food is brought into the station to thaw it would help remove some of the unwanted heat produced by the sun: its reflection from the earth, electronic gadgets and the body temperatures of the crew.

As we can see, pre-cooked frozen meals will play an important part in the space age.

Before concluding I'd like to mention that there is a great potential in irradiated foods. With food preserved with atomic radiation, refrigeration and canning need not be always necessary. Right now the Army Quartermaster Corps is doing the basic research on this method of preservation. Just as food would be a limiting factor in space, so is food a limiting factor in military operations, i.e., the long range atomic submarines. Here fresh foods cannot be readily supplied and the elimination of bulk is a primary factor. Presently the actual preservation of food by irradiation has been developed, the only drawback being the uniformly bad taste and smell. The Armed Forces hope to have this obstacle eliminated as soon as possible. (Irradiation of foods will be discussed in more detail in the next issue of the *Gleaner.*)

And so, as man ventures deeper into the dual age, that of both the atom and space, you can be sure that agricultural technology will play a vital part in assuring us of food and our future existence.

HIJACKED HUMOR

Prof: "What is the difference between a little boy and a dwarf?"

Student: "There might be a lot of difference."

Prof: "For instance?"

Student: "The dwarf might be a girl."

Prof: "This exam will be conducted on the honor system. Sit three seats apart and in alternate rows."

One ear said to the other, "I didn't know you lived on this block."

Dentist: "Your teeth are in perfect condition."

Texan: "Drill anyway, I feel lucky."

Sign in Restaurant:

T-Bone	25¢
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Judge: "You admit you drove over this man with a loaded truck. What's your excuse?"

Defendant: "I didn't know it was loaded."

It seems there were two cannibals playing cards and one threw up a good hand.

Sign in a restaurant: "Our tongue sandwiches speak for themselves."

A kindergarten teacher, putting her charges through a psychological test, set them to work carving soap. She asked what each one was making and they replied: Panda, Moon, Mouse and Gun. Then she came to a lad whose work appeared to defy description. "What's this?" she asked. "Soap flakes," the little tot replied.

There was this guy taking a short cut through the graveyard when he fell into an open grave. Along came a drunk and decided to take the same short cut. When he got to the grave, he heard the first man shouting: "Help! Help! Somebody get me out of here — I'm freezing to death." The drunk got down on his hands and knees at the edge of the grave, peered in, and then snorted: "No wonder you're cold. You've kicked all the dirt off yourself."

There was a knock on Mrs. Jacobly's door. When she opened it, the red-faced party demanded, "Are you the widow Jacobly?" "I am Mrs. Jacobly," she said indignantly, "but I am not a widow." "You're not, eh?" said the visitor, "wait till you see what they're bringing upstairs."

"Mommy, Mommy, will you buy me a bra?"
"No."
"Mommy, Mommy, won't you please buy me a bra?"
"No, Fred."

Little girl: "Mommy, Mommy, what are we doing out in the middle of the lake so late at night?"
Mother: "Shut up and get back in the sack."

Two golfers, strangers to each other, happened to meet on the golf links.
"See that girls over there?" said one. Imagine her parents allowing her to appear in clothes like that. Just copying men's clothes is all it is."

"That sir, is my daughter," said the golfer.

"Oh pardon me. I'm sorry. I didn't know you were her father."

"I'm not," the second golfer said icily, "I'm her mother."

Two soldiers in an English pub were overhead comparing notes on their relatives.

English soldier: "King John struck my ancestor on the shoulder with a sword and made him a knight."

Yankee: "So what! Chief Sitting Bull hit my grandpa on the head with a tommyhawk and made him an angel."

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Solution To Cryptogram In Fall Issue

Ha! Where are you going, you crawling wonder!
Your impudence protects you sorely;
I cannot say but you strut rarely, over gauze and lace;
Though in faith, I fear you dine but sparely, on such place

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